

## REMARKS

Claims 16-31 remain in this application. Claims 16, 30 and 31 were amended In this response. No new matter has been introduced as a result of these amendments. Support for the amendments may be found, for example, on pages 4-5 of the substitute specification.

Claims 16, 17, 30 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Wu et al.* (US Patent 6,545,783) in view of *Gerstel* (US Patent 6,721,508).

Claim 23 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Wu et al.* (US Patent 6,545,783) in view of *Gerstel* (US Patent 6,721,508), and further in view of *Gaudino* ("Remote Provisioning of a Reconfigurable WDM Multichannel Add/Drop Multiplexer").

Claims 24, 25, 28 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Wu et al.* (US Patent 6,545,783) in view of *Gerstel* (US Patent 6,721,508), in view of *Gaudino* ("Remote Provisioning of a Reconfigurable WDM Multichannel Add/Drop Multiplexer"), and further in view of *Liu et al.* (US Patent 6,208,443). Applicants traverse these rejections.

Specifically, the cited art, alone or in combination, fails to teach a plurality of different exchangeable modules each of which connect to a respective channel group for connecting through and branching off channels; the exchangeable modules comprising at least one of a first, second, and a third module type as recited in claim 16 and similarly recited in claim 30 and 31. Furthermore, the cited art fails to teach a combination filter which receives and combines reconfigured channel groups outputted from the plurality of different exchangeable modules depending on their type, wherein the combination filter forms an outgoing WDM signal as recited in the present claims.

Applicant wishes to clarify a point made in the Office Action, where it was submitted that only a first module may be used to satisfy the requirement of "the exchangeable modules comprising at least one of a first, a second and a third module types" (page 9, paragraph 5). Applicant appreciates the Examiner's ability to apply the broadest reasonable interpretation to the claim language. However, this interpretation runs counter to other expressly claimed features of the claims.

The present claims recite "a plurality of different exchangeable modules," which means that two or more different modules are used in the add-drop multiplexing device. The claims

also recite that each of the plurality of different exchangeable modules comprise at least one of a first, a second and a third module type.” This claimed feature, read as a whole, means that, of the plurality of different modules, at least one of a first, second or third type are available as choices, so long as they are different. Thus, as an example, if two modules are used, a first type and a second (or third) type may be used in the configuration. Likewise, if three modules are used, a first type, and two second (or third) types may be used. Alternately, a first, second and third type may be used in the previous example, and so on. The claim language makes clear that a plurality of different modules are used - it stands to reason that if only two modules of a first type are used, they are not different, and do not teach the recited feature.

The presently claimed features address an add-drop multiplexing device with different exchangeable modules. A WDM signal is divided into channel groups, and each of the channel groups are fed into an exchangeable module. By using exchangeable modules, one modular type may be exchanged with a different modular type to accommodate different requirements for the device. Thus, a user may easily upgrade an add-drop multiplexing device without having to replace the device altogether.

In contrast, *Wu* discloses a EDM add-drop multiplexer system, wherein the system uses modules for add-drop channels, while passing other signals as express channels (FIG. 1; col. 5, lines 19-35). However, *Wu* does not disclose an add-drop multiplexer with different exchangeable modules – only one module type (500) is used. The Office Action claims that elements 201, 501 and 202 are “exchangeable modules,” however it is unclear to the Applicant how this can be interpreted in this manner. Elements 201-204 are optical filters/demultiplexers (col. 5, line 10), and elements 501-502 are add-drop switch arrays (col. 12, lines 46-47). Nowhere in *Wu* is it taught that these devices are “exchangeable;” if the add/drop switch array (501) were exchanged in the place of the optical filter (201), the system would be rendered inoperable. Furthermore, under the disclosure of *Wu*, and apparently conceded by the Office Action, these devices are all of the same type (i.e., the remote configuration of channels to be connected-through and add/drop channels). Consequently, *Wu* fails to teach the aforementioned features of the present claims.

*Gerstel* fails to solve the deficiencies of *Wu*, discussed above. *Gerstel* teaches an optical line terminal (OLT), that is separate from the multiplexing/demultiplexing device (6). In the

embodiment disclosed in col. 4, line 61 - col. 5, line 5, *Gerstel* teaches the use of two OLT's arranged in a back-to-back manner to operate as an add/drop multiplexer between multiple WDM systems, wherein the OLT's are set up as a node within the network (col. 5, lines 22-43; lines 57-65). However, *Gerstel* does not teach the OLT configuration as part of a configurable add-drop multiplexing device as required by the present claims, and also does not teach the use of a plurality of different exchangeable modules, each of which connect to a respective channel group for connecting through and branching off channels; the exchangeable modules comprising at least one of a first, second, and a third module type.

Furthermore, there is no teaching, suggestion or motivation to combine the *Gerstal* and *Wu* references in the manner suggested in the Office Action. *Gerstel* teaches a plurality of OLT's configured as a node within a WDM network, while *Wu* teaches the WDM add/drop multiplexing system itself. No person of ordinary skill in the art would rely on the OLT configuration of *Gerstel* to incorporate within the WDM system of *Wu*. Furthermore, it is not understood how such a combination could be made without materially impairing the operability of *Wu*.

In making a determination that an invention is obvious, the Patent Office has the initial burden of establishing a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S. P.Q.2d 1955, 1956 (Fed. Cir. 1993). "If the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain

why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). (see MPEP 2142).

Further, the Federal Circuit has held that it is “impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). “One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention” *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Moreover, the Federal Circuit has held that “obvious to try” is not the proper standard under 35 U.S.C. §103. *Ex parte Goldgaber*, 41 U.S.P.Q.2d 1172, 1177 (Fed. Cir. 1996). “An-obvious-to-try situation exists when a general disclosure may pique the scientist curiosity, such that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claim result would be obtained if certain directions were pursued.” *In re Eli Lilly and Co.*, 14 U.S.P.Q.2d 1741, 1743 (Fed. Cir. 1990).

For the reasons cited above, Applicant requests the rejections be withdrawn and respectfully submits that claims 16-31 are both novel and non-obvious over the art of record. Accordingly, Applicant respectfully requests that a timely Notice of Allowance be issued in this case. It is further noted that no fees are due in connection with this response at this time. If any fees are due in connection with this application as a whole, the office is hereby authorized to deduct said fees from Deposit Account No.: 02-1818. If such a deduction is made, please indicate the Attorney Docket Number (0112740-665) on the account statement.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

Peter Zura  
Reg. No. 48,196  
Customer No.: 29177  
Phone: (312) 807-4208

Dated: April 12, 2006